

allowing said at least one of the one or more database tables to have update access to the tablespace when the first database table is restored.

19. (Once Amended) The method of claim 17, further comprising:

deleting all rows of the first database table; and
locking out access to indices of the first database table.

REMARKS

Claims 1-6 and 12-20 are pending in the present application, with claims 1-6, 12 and 17-19 having been amended herein.

A Letter With Proposed Drawing Changes is submitted herewith amending Fig. 2 by changing "Backup Copy System" to -- Tablespace Backup Storage--. Note, however, that in keeping with current Patent Office procedure, Applicant will defer submission of formal drawings until the application has been deemed allowable.

The Office Action objected to the drawings as failing to comply to 37 C.F.R. 1.84(p)(4) because reference character "202" in Fig. 2 has been used to designate both "backup copy system" and "tablespace backup storage". Accordingly, as noted above,

Applicants have amended Fig. 2 to change "Backup Copy System" to --Tablespace Backup Storage--.

Additionally, the Office Action objected to the drawings as failing to comply to 37 C.F.R. 1.84(p)(5) because the drawings do not include a reference to step 300 mentioned in the description and because the drawings do include a reference to step 322 not mentioned in the description. Applicants have herein amended the specification to remove references to step 300. Applicants also respectfully point out that on page 12, lines 17-19, step 322 is described.

Accordingly, Applicants respectfully submit that each of the drawing objections have been overcome and should therefore be withdrawn.

Further, the Office Action objected to the preamble of claim 1 because the preamble recites "a system for recovering a table comprising" instead of "a system for recovering a database table comprising". The Office Action also suggested that the claim limitations of claims 1, 12 and 17 should recite "database table" and "first database table" to be in agreement with the title and to properly point out and to particularly claim that which Applicant regards as his invention. In response to these objections, Applicant has amended claims 1, 12 and 17 (and claims 4, 6, 18 and 19) by adding --database-- before "table".

Lastly, the Office Action noted that in claim 17 the term -or- needs to be added between "one" and "more". Accordingly, Applicant has amended claim 17 by changing "one more records" to --one or more records--.

Claims 1-6 and 12-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,721,915 ("Sockut et al."). For at least the reasons set forth below, amended independent claims 1, 12 and 17 are believed to be patentable over Sockut et al.

Sockut et al. appears to relate to the reorganization of a database management system that copies data from an old area in a table space to a new area in the table space in a reorganized form. The new area is a new, reorganized version of the table space. [Col. 3, line 60 - Col. 4, line 3].

Sockut et al., however, do not teach or suggest every element recited in amended independent claims 1, 12 and 17 of the present application for at least the following reasons. Specifically, as to claims 1, 12 and 17, Sockut et al. fails to teach or suggest:

- "to restore a database table in the tablespace from the updated backup copy without modifying the configuration of the tablespace", as recited in amended claim 1; and

- "applying the log records to the backup copy without modifying the configuration of the tablespace", as recited in amended claims 12 and 17.

Rather, Sockut et al. teaches the reorganization, reconstruction or rebuilding of an entire tablespace (or a partition of a table space). Based on Sockut et al., Applicants respectfully submit that it would not have been obvious to one having ordinary skill in the art at the time the invention was made to restore a database table without modifying the table space. In fact, Sockut et al. teaches away from restoring a table without modifying the table space, as the table space itself in Sockut et al. is modified. See M.P.E.P. § 2141.02.

Accordingly, Applicants respectfully submit that claims 1, 12 and 17 are patentable over Sockut et al.

Claims 2-6, 13-16 and 18-20 depend from and further limit claims 1, 12 and 17, respectively and, for at least the reasons stated above in connection with claims 1, 12 and 17, are patentable over Sockut et al.

Applicants have also made herein some additional amendments to claims 1-6 and 17-19 for reasons unrelated to patentability and are not meant to further limit the claims.

This communication is believed to be fully responsive to the Office Action and every effort has been made to place the application in condition for allowance. The claims, in view of

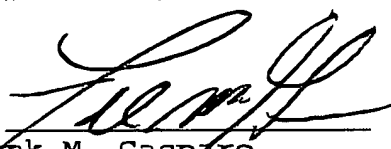
the foregoing explanation, are believed to be patentable over the prior art, and a favorable Office Action is hereby earnestly solicited.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Examiner is requested to telephone the number provided below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment to 37 C.F.R. §1.121. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

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VERSION WITH CHANGES MARKED-UP

In the specification:

Paragraph beginning at line 16 of page 10 has been amended as follows:

In this manner, the table data may be reconstructed while other tables can be accessed in a "read only" mode. Furthermore, each table and the ~~table space~~ tablespace is returned to the configuration that was present prior to the corruption of the data in the affected table.

Paragraph beginning at line 3 of page 13 has been amended as follows:

In operation, the method 300 of Fig. 3 is used to recover a table after the table data has been corrupted without requiring tablespace from which the table depended on to be recovered. The Mmethod 300 of Fig. 3 allows access to other tables of tablespace 10 without requiring those tables to be rebuilt. The Mmethod 300 of Fig. 3 also optimizes the table recovery process by sorting the log records, such that input/output operations to tablespace 10 are optimized during the table recovery process.

In the claims:

Please amend claims 1-6, 12 and 17-19 as follows.

--1. (Twice Amended) A system for recovering a database table comprising:

a table recovery system, the table recovery system operable to retrieve a backup copy of a tablespace and to apply updates to the backup copy from a log, ~~the table recovery system restoring and to restore~~ a database table in the tablespace from the updated backup copy ~~having log updates without having to restore other portions of~~ modifying the configuration of the tablespace; and

a tablespace access system coupled to the table recovery system, wherein the tablespace access system is operable to restrict access to the tablespace to read-only access.

2. (Once Amended) The system of claim 1 wherein the table recovery system further comprises a log record sorter system operable to sort log records from a the log ~~record file~~.

3. (Once Amended) The system of claim 2 further comprising:
a data page updater system coupled to the log record sorter system operable to apply the log record updates to ~~a data page~~ the backup copy.